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Faculty of Law

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**UNIDROIT's MAC PROTOCOL AND THE DEVELOPMENT OF  
THE MINING, AGRICULTURAL AND CONSTRUCTION  
SECTORS IN GHANA**

by  
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## **I General introduction**

## **II Background of the study**

Chattel can be understood as a thing that a person can possess in physical form; a tangible, moveable asset such as, a piece of jewellery, a painting or a car and, in some contexts, goods, equipment or machinery.<sup>1</sup> The acquisition and ownership of chattel is usually protected through registration for unique identification, storage at a bank or a security agency for safe keeping and securing goods under an insurance policy so as not to lose totally in case of any loss.

Safeguarding one's ownership of chattel has become increasingly necessary in this era where trade transcends boundaries. The need for development of innovative systems to help secure a person's interest in a movable asset, stems from issues such as fraudulent purchases, transfers and theft. With cars for instance, a Vehicle Identification Number (VIN) standard or code was created to help assign unique identification to cars from the point of manufacture.<sup>2</sup> The purpose of this code is to help catalogue information about a specific car's life events. From its date of production, registration, inspections to the number of accidents, among other things, are recorded in various registries. This system helps with tracking a specific car's activities, which aids in protecting one's interest in the car. Although a car could be stolen or moved from one jurisdiction to another, its unique identification number helps identify the car.

A question that can be asked here is, can a similar system<sup>3</sup> be used to secure rights in other chattels that are not only mobile across borders but of high value such as aircrafts equipment, agricultural equipment or even space equipment? An answer to this question can be gleaned from the creation of the Convention on International Interests in Mobile Equipment (the Cape Town Convention or CTC) which was signed on the 16<sup>th</sup> of November, 2001.

The CTC and its first supporting Protocol,<sup>4</sup> that were developed in 2001 under the auspices of the UNIDROIT,<sup>5</sup> in collaboration with other international organizations such as the ICAO<sup>6</sup> and

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<sup>1</sup> Reuters "Practical Law" 2019 [www.uk.practicallaw.thomsonreuters.com](http://www.uk.practicallaw.thomsonreuters.com) (8-05-2019).

<sup>2</sup> Car Vertical "What is a VIN? Everything you always wanted to know about car identification" 2019 [www.carvertical.com](http://www.carvertical.com) (8-05-2019)

<sup>3</sup> That is, the Vehicle Identification Number system.

<sup>4</sup> Protocol on Matters Specific to Aircraft Equipment of 2001 (The Aircraft Protocol).

<sup>5</sup> International Institute for the Unification of Private Law (Rome).

<sup>6</sup> International Civil Aviation Organization. It is a specialised agency of the United Nations, charged with the planning and development of international air transport.

IATA<sup>7</sup> as well as various other stakeholder states, have been said to have attained enormous strides in the development of international commercial instruments.<sup>8</sup>

The main purpose of the Convention is to help establish an international legal regime for creation, registration, priority and enforcement of interests in a secured transaction<sup>9</sup> for high value mobile equipment.<sup>10</sup> To attain this, the Convention and its supporting Protocols fashion a comprehensive international legal registry to register international interest of creditors, conditional sellers and lessors in certain categories of high value mobile equipment.<sup>11</sup>

Due to the varying operations in various industries, there are different ways of financing the acquisition of high value mobile equipment. As required by CTC, supplementary Protocols for specific categories of assets have been developed over the years including, the Aircraft Protocol,<sup>12</sup> the Luxembourg Rail Protocol<sup>13</sup> and the Space Assets Protocol.<sup>14</sup> These have been tailored to improve access to finance for intending financiers by ensuring the security of their rights and interests. Currently, there is a proposed extension to the CTC for the areas of mining, agricultural and construction.<sup>15</sup> This proposed Protocol, on which this work is mainly based, provides an international legal framework for the financing of mining, agricultural and construction equipment. The Mining, Agricultural and Construction Protocol (the MAC Protocol) is expected to improve access to cheaper financing as well as enhance access to modern mining, agricultural and construction equipment particularly in developing countries.

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<sup>7</sup> International Air Transport Association (Canada).

<sup>8</sup> Didenko “A Historical Overview of The Basic Concepts of The Cape Town Convention (Part I): ‘International Interest’ And ‘Internationality’” 2017 *University of New South Wales Law Research Series* 136 136.

<sup>9</sup> A secured transaction can be understood as a credit transaction in which a lender acquires a security right in a collateral asset owned by a borrower. A security right refers to a property right in a movable asset which is created by agreement and secures payment or other performance of an obligation. See UNCITRAL *Legislative Guide on Secured Transactions* (2010) 13.

<sup>10</sup> Gray, Gerber and Wool “The Cape Town Convention aircraft protocol’s substantive insolvency regime: a case study of Alternative A” 2016 *Cape Town Convention Journal* 115 115.

<sup>11</sup> Didenko (n 8) 136 137.

<sup>12</sup> Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment of 2001.

<sup>13</sup> Luxembourg Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Railway Rolling Stock of 2007.

<sup>14</sup> Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Space Assets of 2012.

<sup>15</sup> Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Mining, Agricultural and Construction Equipment

A question that arises here is, what impact are these Protocols likely have on the development and growth of the economies of countries particularly, that of developing countries such as Ghana? By relying on the success of previous Protocols such as the Aircraft Protocol, it is expected that, the MAC Protocol would help develop economies by improving the confidence of more private and foreign individuals to invest in the mining, agricultural and construction sectors.

### III Purpose of the study

The investments in equipment made by organisations are often immense.<sup>16</sup> This tends to have an effect on their cash flow and profit making potential.<sup>17</sup> When it comes to industries that require huge capital investment in equipment, private persons as oppose to the government are more invested.<sup>18</sup> In 2017 for example, SpaceX, a American privately-held aerospace manufacturer increased its investment into Founders Fund, a venture capital firm managed by the co-founders of PayPal, from about USD 100 million to USD 450 million.<sup>19</sup> Many similar investments are being made by private entities in the aviation, construction, rail and even agricultural industries.

The local operations of creditors, lessors and investors are normally regulated by the national laws of a state as they are situated in that jurisdiction. However, for international operations of creditors, lessors or investors, it is not that simple. For instance, where a creditor has an interest in an aircraft engine, the mere fact that the aircraft is transiting through a jurisdiction means it has no settled location or *situs* and may not be subject to the local jurisdiction of the place it finds itself at any given time.<sup>20</sup> It is submitted that such situations pose a great risk to investors and creditors. Some countries have well-organized and effective laws to secure transactions that help address this situation but this is not the case in most developing countries.<sup>21</sup> In developing countries, such laws are either non-existent or inadequate to meet current trends.

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<sup>16</sup> Clapp, Shuler, Demiranda, Michael and Mary Ellen “Capital Equipment Acquisition in Heavy Construction” 2007 *International Journal of Construction Education and Research* 159 159.

<sup>17</sup> Clapp, Shuler, Demiranda, Michael and Mary Ellen (n 16) 159 159.

<sup>18</sup> Zheng *A Legal Analysis of "Space Asset" Under the 2012 Space Protocol to the International Interests in Mobile Equipment* Paper Presented at New York University of Law (November/December 2014) ([www.nyulawglobal.org](http://www.nyulawglobal.org)(10- 05- 2019)).

<sup>19</sup> Zheng (n 18).

<sup>20</sup> Beale “The Situs of Things” 1919 *Yale Law Journal* 525 528.

<sup>21</sup> National Law Center for Inter-American Free Trade *Secured Financing for Mobile Equipment: The Proposed Protocol on Mining, Agricultural and Construction Equipment* (2014) 31.

The focus of the CTC has been to create an international system of secured financing law that would reflect the demands of the international financing community.<sup>22</sup> In the aircraft industry for instance, the Convention offered a solution to the problem of uncertainty faced by creditors and investors by reducing the risk associated with asset financing and leasing, thereby increasing access to credit in Contracting States. Similar security has become needed in the mining, agricultural and construction sectors where poor access to credit constrains productivity and profits.<sup>23</sup> The proposed MAC Protocol, which will be explored subsequently, seems to have a solution for this.

The question that still remains, however is, will Ghana as a developing country stand to benefit from ratification and implementation of the CTC and its Protocols? This study will discuss the impact which the proposed MAC Protocol may have on the development of the mining, agricultural and construction sectors of Ghana. It will evaluate the overall development which such a Protocol may bring to the country.

The study will be grouped into four Chapters: Chapter 1 will assess the CTC and its impact on development, Chapter 2 will examine the MAC Protocol by considering its mode of operations and its expected contribution to the development of the mining, agricultural and construction sectors. Chapter 3 will more specifically consider the proposed MAC Protocol's potential impact on the mining, agricultural and construction sectors in Ghana and finally, under Chapter 4, conclusions and recommendations will be made.

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<sup>22</sup> Gorringer "The Benefits that ratification of the Cape Town Convention Can Hold for South African and What Needs to be Done to Achieve implementation of the Convention." 2006 *South African Transport Conference* 162 162.

<sup>23</sup> Warwick Economics and Associates *MAC Protocol Economic Assessment. An Economic Assessment of the Fourth Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Mining, Agricultural and Construction Equipment* (2018) 9.



## 1 Introduction

On the 16<sup>th</sup> November 2001, after intensive work and negotiations at a conference backed by UNIDROIT and ICAO in Cape Town, the CTC and its extension, the Aircraft Protocol were finally opened for signatures.<sup>24</sup> The CTC came about basically to overcome the challenges associated with securing and ensuring readily enforceable rights over equipment which by their nature have no fixed location.<sup>25</sup> The Convention protects the interests of purchasers, creditors and sellers by creating an international registry, which assists to reduce financial risk to creditors by providing them with readily enforceable rights in identifiable high value mobile equipment such as aircraft and space assets.<sup>26</sup>

The fact that different legal systems have different substantive laws for regulating securities, title retention agreements and lease agreements, creates a problem of uncertainty for dealings or transactions with international character.<sup>27</sup> Having a vibrant and efficient securities legal framework in a country, has the potential to increase access to credit, lower cost of credit and enhance private sector growth.<sup>28</sup> Most states however do not have sophisticated securities laws that are designed to address modern security needs for international trade. The CTC seeks to enhance security financing by developing an effective securities' legal framework that is not restricted by territorial delimitations.

The following chapter of this study will assess the CTC and its supporting Protocols, the Aircraft Equipment Protocol, the Luxembourg Rail Protocol, the Space Assets Protocol as well as the preliminary draft MAC Protocol the main focus of this study, to help appraise their contribution and effects in their various sectors.

### 1.1 The Cape Town Convention

The CTC was opened for signatures in November 2001 and it provided rules to govern interests in high-value mobile equipment which would frequently cross-national boundaries to Signatory

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<sup>24</sup> Mooney "The Cape Town Convention's Improbable-but-Possible Progeny Part One: An International Secured Transactions Registry of General Application" 2014 *Penn Law: Legal Scholarship Repository* 2.

<sup>25</sup> Mendiola *Registration of civil aircraft and the Cape Town Convention* (2015) 1.

<sup>26</sup> Mendiola (n 25) 1 2.

<sup>27</sup> Didenko (n 8) 136 138.

<sup>28</sup> Mooney (n 24) 9.

States.<sup>29</sup> In line with this agenda, the CTC creates secured and readily enforceable rights for chattel which by their nature have no fixed location.<sup>30</sup> It envisages the enactment of various Protocols which would address specific tangible movables such as aircraft objects, railway rolling stock and space assets.<sup>31</sup> That is, the Convention adopts a two-instrument approach where it would apply to all asset categories on one hand then a different Protocol for each specific category of mobile asset such as aircraft, rail and space equipment, on the other.<sup>32</sup> The Convention does not operate on its own but applies in conjunction with a Protocol covering a specific type of equipment.<sup>33</sup> In terms Article 6(1) of the Convention,<sup>34</sup> it has to be read together with relevant Protocols. So far, the Aircraft Protocol, the Luxembourg Rail Protocol and the Space Assets Protocol have been enacted to support the CTC in its operation for the various sectors, with the MAC Protocol still a draft.<sup>35</sup> These Protocols will be addressed subsequently.

The CTC and its supporting Protocol create an international interest which is recognised in all Contracting States, an electronic international register of interest and standard rights for creditors in default.<sup>36</sup> The main aim of the CTC is to create an international interest in uniquely identifiable mobile assets. This interest can be vested by a chargor in a security, a person under a conditional sale or lease agreement as well as in an assignee.<sup>37</sup>

There is an international registry collated for each specific asset regulated by a specific Protocol.<sup>38</sup> Here, an electronic system is used for registration and it aids with searches and the issuance of certificates.<sup>39</sup> With the consent of either party to a contract or agreement, registration can be made. Both the registration of international interests or prospective international interests can be done<sup>40</sup> and such a registration serves as notice to the world of the existing encumbrance,

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<sup>29</sup> Goode *The Cape Town Convention on International Interests in Mobile Equipment: a Driving Force for International Asset-Based Financing* (2002) [www.unidroit.org](http://www.unidroit.org) (12- 05- 2019).

<sup>30</sup> Goode (n 29).

<sup>31</sup> Article 2(3) Convention on International Interests in Mobile Equipment of 2001.

<sup>32</sup> Goode (n 29).

<sup>33</sup> Mooney (n 24) 2.

<sup>34</sup> Convention on International Interests in Mobile Equipment of 2001.

<sup>35</sup> There is a scheduled Diplomatic Meeting 11-22 November 2019 to finalise the Protocol.

<sup>36</sup> Field Fisher Waterhouse *Cape Town Convention* (2011) 2.

<sup>37</sup> Field Fisher Waterhouse (n 36) 3.

<sup>38</sup> Article 16 of the Convention on International Interests in Mobile Equipment of 2001.

<sup>39</sup> Article 18 of the Convention on International Interests in Mobile Equipment of 2001.

<sup>40</sup> This is accordance with Article 16(1)(a) of the Convention on International Interests in Mobile Equipment of 2001.

protects the creditor's priority over unregistered interests and aids insolvency proceedings. A creditor is expected to obtain a discharge of registration of a debt once the registered debt has been settled.<sup>41</sup>

For insolvency issues, the Convention and its Protocols provide a variety of approaches for dealing with bankrupt debtors. For instance, it allows Contracting States to make declarations on such issues to their benefit.<sup>42</sup> Similar flexibility is allowed for default remedies. These include standard default remedies such as taking possession or control of the encumbered mobile asset or procuring its de-registration. The Convention goes further to allow states to add on to these default remedies.<sup>43</sup> The flexibility that the Convention and its Protocols provide creditors and debtors is a great advantage for commerce as it allows the parties to contract out of the Convention to suit their contractual needs. It also allows parties to determine with some degree of certainty, the extent of the rights of third parties and a grantor in an encumbered property.<sup>44</sup>

## 1.2 The Aircraft Protocol

As a global network,<sup>45</sup> the air transport industry provides millions of jobs by connecting economies.<sup>46</sup> It is not surprising that at the adoption of the CTC on 16 November 2001, the Aircraft Equipment Protocol was also enacted to address the financing of aircraft objects<sup>47</sup> specifically. As the only protocol of the CTC currently in force,<sup>48</sup> it serves as a good yardstick for understanding the possible impacts of other Protocols that are yet to be enacted.

Before the enactment of the CTC and the Aircraft Equipment Protocol, creditors struggled to determine the legal system that would govern their interests in aircrafts objects.<sup>49</sup> This was the main issue that the Geneva Convention<sup>50</sup> tried to resolve by offering that, the country of

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<sup>41</sup> This is in accordance with Article 25 of the Convention on International Interests in Mobile Equipment of 2001.

<sup>42</sup> Article 39 of the Convention on International Interests in Mobile Equipment of 2001.

<sup>43</sup> Article 8 of the Convention on International Interests in Mobile Equipment of 2001.

<sup>44</sup> In Chapter VIII of the Convention the effects of an international interest as against third parties are addressed.

<sup>45</sup> This global network consists of commercial aircraft operators, airports, air navigation service providers and the manufacturers of aircraft and their components.

<sup>46</sup> Zheng (n 18).

<sup>47</sup> According to Article 1(2) of the Aircraft Protocol, aircraft objects means airframes, aircraft engines and helicopters.

<sup>48</sup> The Aircraft Protocol came into force in 2006.

<sup>49</sup> Downs "Taking Flight from Cape Town: Increasing Access to Aircraft Financing" 2014 *Penn Law: Legal Scholarship Repository* 863 870.

<sup>50</sup> Convention on the International Recognition of Rights in Aircraft of 1948.

registration of an aircraft be the permanent *situs* of an aircraft.<sup>51</sup> This declaration helped to definitively determine the applicable law for addressing rights in aircraft objects. The Geneva Convention on one hand provides a solution for determining the rights in aircraft but on the other, fails to specify whether such rights were to be determined by domestic law exclusively, or in conjunction with private international law.<sup>52</sup> This has shown to be problematic where the two sources of law are different. The CTC and its Aircraft Protocol improved this situation by creating an international interest and an international registry that is not dependent on domestic law.<sup>53</sup> By this, interest of creditors in an aircraft object are protected as long as they are covered under the CTC. Debtors can still operate their businesses with the encumbered aircraft asset. In the instance that the signatories of the Aircraft Protocol are also Contracting States of the Geneva Convention, the Aircraft Protocol shall take precedence over the Convention.<sup>54</sup>

In order to secure international interests, the Aircraft Protocol of the CTC, creates a system that provides unique identification for aircraft objects through the use of a manufacturer's serial number, the name of the manufacturer and its model.<sup>55</sup> The Aircraft Protocol is unique indeed as it provides regulations for airframes, aircraft engines and helicopters – issues in relation to them are predictable and certain.<sup>56</sup>

Today, the CTC and its Aircraft Equipment Protocol have been very efficient in improving access to finance for aircraft objects. For instance, the Protocol creates an international registry under which international interest can be registered as long as a debtor is situated in a Contracting State.<sup>57</sup> This registry goes further to provide international priority for registered aircraft objects. The CTC and the Aircraft Protocol provide for remedies and enforcement as well as the Contracting State's law which would apply in cases of default. The profound benefit to this is that transparency is ensured and, in the long run, financing or leasing of high value aircraft equipment is secure.

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<sup>51</sup> Zeroo *The Role of International Conventions in Aviation Law* (2016) 30.

<sup>52</sup> Hanley "The relationship between the Geneva and Cape Town conventions" 2015 *Cape Town Convention Journal* 103 103.

<sup>53</sup> Hanley (n 52) 103 103.

<sup>54</sup> Article XXIII of the Aircraft Protocol of 2001.

<sup>55</sup> National law Center for Inter-American Free Trade (n 21) 20.

<sup>56</sup> Hanley (n 52) 103 104.

<sup>57</sup> Downs (n 49) 863 864.

### 1.3 Luxembourg Rail Protocol

The Luxembourg Rail Protocol<sup>58</sup> to the CTC was adopted under the auspices UNIDROIT and OTIF<sup>59</sup> to create a new legal framework that will recognise and regulate security interests of lenders, lessors and vendors selling under conditional sale agreements in railway rolling stock.<sup>60</sup> Although this Protocol is still not in force, it would potentially impact the rail industry immensely. Similar to the Aircraft Protocol, the Rail Protocol operates in conjunction with the CTC and creates a registry in which certain interests in railway rolling stock may be registered and searched. As with the Aircraft Protocol, under the Rail Protocol, registered rolling stock are assigned permanent and unique identification.<sup>61</sup> This unique identifier serves as a notice of sale of the rolling stock whilst not creating any additional rights under domestic law ensuring security over the interests they carry.

Rapid urbanization has had a direct connection to the increased demand on transportation. Many countries have had to improve their train services by creating new and extensive routes for transporting goods and passengers. It is estimated that countries such as China would have a railway system five times the extent of its 1950 size by 2020.<sup>62</sup> However, governments are seen to be spending less on public infrastructure.<sup>63</sup> This is evident from the drop in European governmental expenditure in the sector from 5% in 1970, to 2.5% currently.<sup>64</sup> The question here is how would the transport industry expand if governments are reducing expenditure on infrastructure? The simple solution lies with the private sector.

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<sup>58</sup> This Rail Protocol was adopted Luxembourg in February 2007.

<sup>59</sup> This Protocol is known as Intergovernmental Organisation for International Carriage by Rail, from the official French: Organisation Intergouvernementale pour les Transports Internationaux Ferroviaires (OTIF). The organisation is an intergovernmental body that governs International Rail transportation. Its headquarters is in Berne, Switzerland.

<sup>60</sup> According article 1(2)(e) of the Luxembourg Rail Protocol, railway rolling stock particularly refers to, vehicles movable on a fixed railway track or directly on, above or below a guideway, together with traction systems, engines, brakes, axles, bogies, pantographs, accessories and other components, equipment and parts, in each case installed on or incorporated in the vehicles, and together with all data, manuals and records relating thereto. This was assessed at the UNIDROIT website [www.unidroit.org](http://www.unidroit.org) (8- 05- 2019).

<sup>61</sup> Goodstein and Rosen “Luxembourg Rail Protocol Steams Ahead” 2017 *New York Times Law Journal* 1 1.

<sup>62</sup> Hirst “The International Rail Registry and the Luxembourg Rail Protocol” 2019 *Elte Law Journal* 173 175.

<sup>63</sup> Hirst (n 62) 173 175.

<sup>64</sup> Hirst (n 62) 173 175.

The private sectors have become heavily invested in the provision of public infrastructure, investing about USD 1 trillion to USD 1.5 trillion per annum.<sup>65</sup> The ability of a vibrant rail system to expand an economy is undeniable and, as such, states adopt various ways to incentivise private investors to invest in the provision of such public infrastructure. The Luxembourg Rail Protocol and the international rail registry creates the transparency and the security they require in the private sectors to have the confidence to invest in an economy. Globally, the Luxembourg Rail Protocol is expected to create a competitive and dynamic rail industry that provides operators and investors the desired security over their rights.

#### **1.4 Space Assets Protocol**

The codification of space laws began with the Declaration of Principles Governing Space<sup>66</sup> in 1962.<sup>67</sup> This Declaration formed the basis of international space law and laid down fundamental principles such as: space should be explored and used for the benefit of all mankind; space is open to free exploration by all states; that no state can claim sovereignty over space or celestial bodies and states must bear responsibility for all their activities in space.<sup>68</sup> These principles enunciated by the declaration, were a reflection of the concerns of States, at a time when space activities were mostly carried out by governments and private commercial use of space was beyond imagination. This declaration however was not the only intervention of the UN to regulate the space industry. Other treaties such as the Outer Space Treaty,<sup>69</sup> the Rescue and Return Agreement,<sup>70</sup> the Liability Convention,<sup>71</sup> and the Registration Convention<sup>72</sup> have contributed immensely to the sector.

It is undeniable that the development of the space industry has become increasingly complex over the years. It has moved from merely government exploration to private individuals making

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<sup>65</sup> Hirst (n 62) 173 175.

<sup>66</sup> United Nations Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space of 1962.

<sup>67</sup> Sundahl “The Cape Town Convention and the Law of Outer Space: Five Scenarios” 2014 *Cape Town Convention Journal* 109 110.

<sup>68</sup> Sundahl (n 67) 109 110.

<sup>69</sup> Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies of 1967.

<sup>70</sup> Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Space of 1968.

<sup>71</sup> Convention on International Liability for Damage Caused by Space Objects of 1972.

<sup>72</sup> Convention on Registration of Objects Launched into Outer Space of 1975.

huge investments in the sector.<sup>73</sup> Today, space equipment for instance are financed by private entities such as banks, insurance and investment companies with governments making some investments in the sector.<sup>74</sup> With this increased need for the development of the space industry, more risk is carried by financiers of the private sector. The Protocol promotes low-cost credit by enhancing the availability of secured credit for private entities.

Satellites, as space objects, are highly mobile in nature and will inevitably cross some national borders in its lifetime whilst in space. Due to its mobility in space, legal uncertainties exist in relation to international security interest created in it. Domestic laws may not be sufficient to regulate such interests. Financiers or creditors are dependent on the national laws of the state to determine their rights or interest in space equipment that does not have a permanent location on earth and this is problematic. It is for this very reason that the Space Protocol to the CTC was enacted in 2012 at a diplomatic conference in Berlin, under the auspices of UNIDROIT.<sup>75</sup> This was to mark a significant step forward towards unifying the rules of national laws on the subject of finance for mobile space equipment.<sup>76</sup> The Space Assets Protocol, as its counterpart, the Rail Protocol, is still yet to enter in force. This could be accredited mainly to the initial disbelief of key players and stakeholders in the usefulness of a Space Protocol.<sup>77</sup> However, the increased need for the use of space technology has the potential to convince more states to accede and ratify the Protocol in the coming years. For small commercial satellite operators and start-up companies, this Protocol will be invaluable due to the predictability it will provide – they will be able to secure credit at reduced rates to expand their operations.

### **1.5 Mining, Agricultural, and Construction (MAC) Equipment Protocol**

There is a fourth proposed Protocol to the CTC that will cover the finance of mining, agricultural and construction equipment. This supporting Protocol is expected to be adopted in 2019. The MAC Protocol is expected to be used in connection with the CTC to, among other things, safeguard international security interests by securing the priority of an interest and provide a range of default

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<sup>73</sup> Zheng (n 18).

<sup>74</sup> Sundahl (n 67) 109 110.

<sup>75</sup> Zheng (n 18).

<sup>76</sup> Zheng (n 18).

<sup>77</sup> Stanford “The availability of a new form of financing for commercial space activities: the extension of the Cape Town Convention to space assets.” 2012 *Cape Town Convention Journal* 109 117.



remedies for creditors. This new Protocol is expected to enhance the enforceability and predictability of security, leasing rights, reservation of title and increase mining, agricultural and construction equipment globally.

It is also anticipated that there would be a reduction in credit risk and improved access to finance for suppliers of mining, agricultural and construction equipment. Each of the industries to be addressed by the Protocol, that is the mining, construction and agricultural sectors, have the propensity to propel an economy when huge investments are made in them.

The possible advantages for this proposed MAC Protocol seem to be numerous considering the success of its predecessor Protocols. This study is based mainly on this proposed MAC Protocol and will be examined in detail subsequently.

## **1.6 Summary**

The impact of the CTC can be gleaned not only from the successes it has achieved but also its potentials. A special regime that regulates the financing of high value mobile equipment has shown to be very prudent. Features of the Convention and its supporting Protocols such as the existence of an international registry for the registration of international interests, establishment of an effective regime for insolvency proceedings and remedies for default, has proven to be very advantageous in ensuring predictability and certainty for transactions involving mobile equipment.

In relation to the Aircraft Protocol, the only Protocol currently in force, problems with aircraft equipment financing has been improved by the Convention as issues such as political interference, unreliable priority rankings, among others, that affect financing of aircraft equipment have been greatly reduced. There is improved certainty for airlines and aircraft operators that aircraft equipment, financed or leased by creditors, will not be seized as long as they maintain their financial obligations.

For Space and Rail equipment, the Convention, together with the Protocols, introduces an asset-based method of financing which allows the creditor to take possession or control of the asset in the event of the debtor's default.<sup>78</sup> Such innovative techniques have proven to be economically beneficial to creditors, thus serving as a motivation for more investment which creates a robust and competitive industry. Although these Protocols are not in force yet, they are speculated to have great impacts in their various industries.

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<sup>78</sup> Stanford (n 77) 109 121.



A question that arises is whether the proposed MAC Protocol would have a better fate of coming into force and being ratified by as many states as its predecessors? The answer to this lies in the fact that the MAC Protocol addresses assets that are of crucial importance to both the economies of developed and developing countries.

## **2      *The Mining, Agricultural, and Construction (MAC) Equipment Protocol***

### **2.1      General overview**

In December 2005, the UNIDROIT Governing Council agreed to add the MAC Protocol to the Institute's Work Program.<sup>79</sup> An examination of the feasibility of the Protocol began from this point through a series of negotiations.<sup>80</sup> The Governing Council, acting on recommendations of the UNIDROIT General Assembly at its 84<sup>th</sup> session in 2006, presented a document on the MAC Protocol which listed categories of mining, agricultural and construction equipment to be covered by the Protocol.<sup>81</sup> At the General Assembly's 86<sup>th</sup> session, the Governing Council had compiled a report containing a comprehensive questionnaire on issues relating to the development of the MAC Protocol.<sup>82</sup> This was to gauge the needs of stakeholders in the mining, agricultural and construction sectors. The report also contained suggestions for the possible wording of the proposed Protocol. This led to a preliminary text for the Protocol which was presented in 2009 at their 88<sup>th</sup> session. In the creation of this text, many states such as the US, Germany and Finland not only contributed but strongly endorsed the Protocol.<sup>83</sup> Specifically, Germany and the US conducted internal consultations with domestic private industries to better understand the feasibility and practicality of the Protocol.<sup>84</sup>

After much negotiation, the Governing Council at its 97<sup>th</sup> session in 2018, considered the recommendation of passing this Protocol for the benefit of the mining, agricultural and construction sectors all across the world.<sup>85</sup> At this session, the Governing Council was invited to

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<sup>79</sup> International Institute for the Unification of Private Law *Study on the development of a Fourth Protocol to the Cape Town Convention on Matters Specific to Mining, Agricultural and Construction Equipment* (2019) [www.unidroit.org](http://www.unidroit.org) (20-06-2019)

<sup>80</sup> This was in line with the mandate of the Governing Council under Article 51 of the CTC, to determine feasibility of extending the application of this Convention.

<sup>81</sup> International Institute for the Unification of Private Law (n 79) (20-06-2019).

<sup>82</sup> International Institute for the Unification of Private Law (n 79) (20-06-2019)

<sup>83</sup> International Institute for the Unification of Private Law (n 79) (20-06-2019).

<sup>84</sup> International Institute for the Unification of Private Law (n 79) (20-06-2019).

<sup>85</sup> International Institute for the Unification of Private Law (n 79) (20-06-2019).

consider whether the draft MAC Protocol was adequately advanced to be concluded.<sup>86</sup> Based on its findings, a Diplomatic Conference is to be convened in November 2019, to officially conclude the Protocol.<sup>87</sup>

Advocacy for this proposed MAC Protocol has been for various reasons. This includes the fact that the Protocol when in force, would create an atmosphere of certainty and predictability that creditors, operators or lessors require when making huge investments into high value mobile equipment. It is also anticipated that, the Protocol would have the potential to increase outputs and the development of a country's economy, by opening a new and vibrant market to manufacturers and producers of primary goods. It will serve as a basis for establishing priority among multiple security rights in mining, agriculture and construction assets. The MAC Protocol appears to have a promising future for development, making it imperative to understand its implication better.

In this chapter, the draft MAC Protocol<sup>88</sup> will be examined by considering how the proposed Protocol would operate upon coming into force. The study will examine the potential benefits of the Protocol to the economies of developing countries in particular.

## **2.2 Mode of operation**

Based on the two-instrument approach adopted for the CTC, the draft MAC Protocol, as the preceding Protocols, is expected to be an extension of the Convention that would provide solutions for the finance or the acquisition of high value identifiable MAC equipment.<sup>89</sup> Thus, whilst the CTC provides a general approach for dealing with various issues that affect the finance of identifiable mobile equipment, a Protocol (such as the MAC Protocol) builds up on the provisions of the Convention, by providing specific and unique rules for a specific category of mobile objects. Similar to its predecessors, the provisions of draft MAC Protocol touches on key issues involving international interests, international registries, identification of equipment, priorities, insolvency as well as remedies for default. It also contains an exhaustive list of MAC equipment over which it will regulate. Basically, its mode of operation is structured in a way that addresses matters

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<sup>86</sup> International Institute for the Unification of Private Law (n 79) (20-06-2019).

<sup>87</sup> International Institute for the Unification of Private Law (n 79) (21-06-2019)

<sup>88</sup> International Institute for the Unification of Private Law *Draft MAC Protocol as prepared by the Committee of Governmental Experts and approved by the Governing Council* (2018) (DCME-MAC – Doc. 3). The document (hereinafter Draft MAC Protocol) is available at the UNIDROIT online website [www.unidroit.org](http://www.unidroit.org) (21-06-2019).

<sup>89</sup> Mooney (n 24) 2.

concerning debtors and creditors when financing MAC equipment. This subsection will consider these key issues addressed by the draft MAC Protocol.

**a International interests**

To secure the rights of creditors or lenders, the CTC and a designated Protocol create an international interest which is recognised in all Contracting States. According to Article 2(2)<sup>90</sup> of the CTC, this international interest is to be created in uniquely identified mobile equipment (in this instance the MAC object). The purpose of this international interest is to allow its holders to enforce their rights without recourse to the domestic law of the country in which the mobile asset is located at the time of default.<sup>91</sup> Internationality is inherent in the nature of mobile equipment as it is foreseeable that they may be moved from one jurisdiction to another. International interest in mobile objects helps guarantee legal rights of creditors irrespective of the location of the mobile asset. This does not however mean the CTC and its Protocols do not apply to objects that do not move from one jurisdiction to another. The Convention is silent on a mobility requirement for establishing international interest, which implies that, the Convention could be applied to mobile objects that do not usually move across territories.<sup>92</sup> With agricultural equipment for instance, it is foreseeable that equipment acquired may never move from one jurisdiction to another in its life time. Thus, it is beneficial that the scope of the CTC or its Protocols is not limited to objects that cross borders.

**b Identification of equipment**

As can be deduced from the discussion so far, the three main criteria that qualify an asset to be regulated by the CTC is that, it must have a high value, it must be mobile and it must be identifiable. By the nature of Aircraft and Space assets, their value and their ability to be moved from one place to another is foreseeable. For mining, agriculture and construction equipment, mobility, high value and identification is required.

According to Article 18 of the CTC, each Protocol should specify the criteria for unique identification of an object. This criterion should be the basis for registration of a specified mobile

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<sup>90</sup> Article 2(2) Cape Town Convention of 2001.

<sup>91</sup> Gabriel “The MAC Protocol: we aren’t there yet – how far do we have to go?” 2015 *Cape Town Convention Journal* 67 70.

<sup>92</sup> Gabriel (n 91) 67 71.

asset, making searches and issuing search certificates and documents of the international registry.<sup>93</sup> The draft MAC Protocol specifically provides that, to qualify equipment for registration, a description that contains its manufacturer's serial number and additional information is required to ensure unique identification of an asset.<sup>94</sup>

Further, under the draft Protocol, an exhaustive list of registrable equipment has been specified. There are three separate Annexes<sup>95</sup> for mining, agriculture and construction equipment.<sup>96</sup> This catalogue<sup>97</sup> of equipment limits the kinds of equipment that can be registered to those that are of a high value and economically worthy of investment.

### **c International registries**

To better secure and protect international interests that may arise for mobile equipment, the CTC provides for an international registry to be established under each Protocol.<sup>98</sup> International interests (whether current or prospective) and assignments are registrable in this international registry. The registry is based on an electronic registration system which serves as notice of registration.<sup>99</sup> Registered equipment are given priority according to their order of registration, over unregistered and subsequently registered equipment.<sup>100</sup> Thus, the main purpose of this registry can be

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<sup>93</sup> Article 18 Cape Town Convention of 2001.

<sup>94</sup> Article XVII Draft MAC Protocol of 2018.

<sup>95</sup> In the draft MAC Protocol, Annex 1 is for mining equipment, Annex 2 is for agricultural equipment and Annex 3 is for construction equipment.

<sup>96</sup> According to Article I (2)(k) of Draft MAC Protocol, mining equipment means an object that falls under a Harmonized System code listed in Annex 1 to the Protocol, including all installed, incorporated or attached accessories, components and parts which do not fall within a separate Harmonized System code listed in that Annex, and all data, manuals and records relating to it.

According to Article I (2)(a) of Draft MAC Protocol, "agricultural equipment" means an object that falls under a Harmonized System code listed in Annex 2 to the Protocol, including all installed, incorporated or attached accessories, components and parts which do not fall within a separate Harmonized System code listed in that Annex, and all data, manuals and records relating to it.

According to Article I (2)(b) of Draft MAC Protocol "construction equipment" means an object that falls under a Harmonized System code listed in Annex 3 to the Protocol, including all installed, incorporated or attached accessories, components and parts which do not fall within a separate Harmonized System code listed in that Annex, and all data, manuals and records relating to it.

<sup>97</sup> In cataloguing the equipment covered by the MAC Protocol, the Harmonized Commodity Description and Coding System (HS), as governed by The International Convention on the Harmonized Commodity Description and Coding System of 1988 was used to describe, classify and code the mining, agriculture and construction equipment. Article I (2)(g) Draft MAC Protocol of 2018.

<sup>98</sup> National law Center for Inter-American Free Trade (n 21) 4.

<sup>99</sup> Article 17(2)(i) Cape Town Convention of 2001.

<sup>100</sup> Aviation Working Group *Practitioners' Guide to the Cape Town Convention and the Aircraft Protocol* (2015) 9.

summarised as a system that serves as notice for third parties and grant priority to registered creditors or investors against any subsequent registered interests. The benefit of this for economies is that, as security is enhanced, more investors invest in the acquisition of high value equipment which, in the long run, increases output and ensures economic development.

To establish an efficient registry for mining, agricultural and construction equipment, the draft MAC Protocol dictates that a supervisory authority and registrar be designated for the international registry.<sup>101</sup> They are to be charged with facilitating the effective operation of the registry. For Aircraft objects for instance, the ICAO<sup>102</sup> accepted the function of supervisory authority. Under the guidance of the UNIDROIT General Assembly, a Preparatory Commission was set up to act as Provisional Supervisory Authority pending the adoption of the MAC Protocol in November 2019 in Pretoria.<sup>103</sup> The supervisory authority and the registrar, are to facilitate and maintain the registration of international interest and assignments whether the interest is prospective or current.

#### **d Priorities and remedies**

To better secure international interests, there has to be provision for priority of registered interests and a system laying down the remedies for any default.<sup>104</sup> According to article 29 of the CTC, a registered right has priority over any subsequent registered interest as well as any unregistered right and such priority of interest extends to proceeds as well. Certainty for commerce is guaranteed by the CTC securing holders of interests in a mobile asset. It permits multiple security rights in the same asset, by providing clear rules for ordering the priority.<sup>105</sup>

With MAC equipment, it is foreseeable that it could be used with fixtures such as land which is regulated by domestic laws. The question is whether the MAC Protocol would nevertheless establish priority where the MAC equipment is to be used with an immovable property which is regulated by domestic law?

This issue has been addressed by the draft MAC Protocol, as it provides a definition for immovable property that is used in association with MAC equipment. The domestic law of the state in which the equipment is located is to be considered to determine whether an interest related

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<sup>101</sup> Article XIV Draft MAC Protocol of 2018.

<sup>102</sup> Cape Town Diplomatic Conference invited the International Civil Aviation Organisation.

<sup>103</sup> This was assessed at the UNIDROIT website [www.unidroit.org](http://www.unidroit.org) (8- 07- 2019).

<sup>104</sup> Aviation Working Group (n 100) 14.

<sup>105</sup> Article 29(6) Cape Town Convention of 2001.

to the immovable property extends to the MAC equipment.<sup>106</sup> By this generic definition, the challenge of determining a uniform definition for fixtures in various countries with different laws is avoided.<sup>107</sup>

In relation to remedies, Chapter III of the CTC provides for the situation when there is a default by a debtor.<sup>108</sup> Parties are also free to set up additional remedies for any case of default.<sup>109</sup> Typically, default occurs where there is failure to perform one's obligation under the agreement. That is, failure of a creditor to deliver goods or failure of the debtor to pay back a loan. However, parties can define what constitutes a breach or default by agreement.<sup>110</sup> There is a further requirement that remedies should be exercised in a commercially reasonable manner that is in conformity with provisions of a security agreement.<sup>111</sup> The CTC encourages enforcement of agreements which more often than not, require the support of government to be efficient in its execution of remedies.

#### **e      Insolvency**

The CTC and the draft MAC Protocol provide for situations where a debtor is insolvent.<sup>112</sup> Here, the creditors' rights are guaranteed despite not having satisfied any domestic law requirement to entitle them to interests on the insolvency of the debtor. The Convention assists in circumventing any impediments that the domestic law might contain for the rights of the creditor.<sup>113</sup> Also, the supplementary Protocols of the Convention provides for the actual enforcement of remedies when a debtor is insolvent.<sup>114</sup> The proposed Protocol is expected to assist prospective creditors to determine the priority of their security rights at the beginning of the transaction in a reliable and timely manner.

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<sup>106</sup> International Institute for the Unification of Private Law *Explanatory Report to the preliminary draft MAC Protocol* (October 2017) (Study 72K – CGE2 – Doc. 3, para 13). [www.unidroit.org](http://www.unidroit.org) (18/07/2019). Hereinafter UNIDROIT 2017 Study.

<sup>107</sup> UNIDROIT 2017 Study (n 106) para 13.

<sup>108</sup> These include remedies for the chargee, redemption and remedies for the conditional seller or lessor.

<sup>109</sup> Article 12 Cape Town Convention of 2001.

<sup>110</sup> Article 11 Cape Town Convention of 2001

<sup>111</sup> Article VIII Draft MAC Protocol of 2018.

<sup>112</sup> Article 30 Cape Town Convention of 2001.

<sup>113</sup> National law Center for Inter-American Free Trade (n 21) 17.

<sup>114</sup> National law Center for Inter-American Free Trade (n 21) 17.



Two distinct approaches from which Contracting States can choose have been adopted so far for insolvency by the Aircraft and Space Protocols, with the Rail Protocol adding on a third.<sup>115</sup> To achieve the highest benefit from the remedy for insolvency, the study group for the proposed MAC Protocol opted to include all three insolvency alternatives<sup>116</sup> in the preliminary draft MAC Protocol.<sup>117</sup> Contracting States are given the opportunity to choose from a wide range of alternatives to guide issues of insolvency. This level of flexibility assists parties in coming to agreements that are not only favourable to them but also the best for transactions at hand.

### **2.3 Expected contribution to the development of the Mining, Agricultural and Construction sectors specifically in developing countries**

The prospects of CTC and its Protocols for development are numerous. They provide consistency, predictability and risk mitigation through default remedies or regulation of party autonomy which are essential for securing interests in mobile equipment. The space industry for instance, is expected to see an increase in investment from the private sector as opposed to previous sole reliance on government funding. The CTC provides a regime where parties can obtain security rights in the mobile assets in an easy and convenient manner due to its ability to streamline procedures for transactions. Similar effects are anticipated with the creation of the proposed MAC Protocol. The expected contributions of the proposed MAC Protocol on the development of the mining, agricultural and construction sectors especially in developing countries, will subsequently be considered.

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<sup>115</sup> National law Center for Inter-American Free Trade (n 21) 18.

<sup>116</sup> This alternatives can be found under Article X of the Draft MAC Protocol: Alternative A – the insolvency administrator or the debtor, give possession of the equipment to the creditor not later than the earlier of:(a) the end of the waiting period; and (b) the date on which the creditor would be entitled to possession of the equipment if this Article did not apply.

Alternative B – the insolvency administrator or the debtor, as applicable, upon the request of the creditor, shall give notice to the creditor within the time specified in a declaration of a Contracting State whether it will:(a) cure all defaults other than a default constituted by the opening of insolvency proceedings and agree to perform all future obligations, under the agreement and related transaction documents; or (b) give the creditor the opportunity to take possession of the equipment, in accordance with the applicable law.

Alternative C – the insolvency administrator or the debtor, as applicable, shall within the cure period:(a) cure all defaults other than a default constituted by the opening of insolvency proceedings and agree to perform all future obligations, under the agreement and related transaction documents; or (b) give the creditor the opportunity to take possession of the equipment in accordance with the applicable law.

<sup>117</sup> UNIDROIT 2017 Study (n 106) para 55.

## **i Market conditions of Mining, Agricultural and Construction sectors**

The proposed MAC Protocol is expected to have a great impact on creditors or investors, mining, agriculture and construction equipment users, mining, agriculture and construction sector supply chains, customers and other end users, manufacturers, exporters, investors and suppliers as well as governments. To better examine the direct or indirect impacts of the proposed MAC Protocol on these groups, the current position must be considered.

Most developing countries have inadequate securities transaction laws for dealing with high value mobile assets.<sup>118</sup> For instance, in Ghana and in most developing countries, rules regulating security interests in space assets, have not been addressed specifically. Where domestic secured transactions law of a country addresses objects or assets that are mobile in nature, the creditor or investor is faced with the difficulty of sifting through many domestic laws of countries in which they wish to conduct business to determine the effect of these laws on their transactions. This can be difficult, time consuming and a great disincentive to investment. The proposed MAC Protocol is expected to work in close relation with domestic laws as the mining, agriculture and construction equipment are likely to be covered by the domestic securities law. The Protocol is expected to create an avenue for the harmonisation of rules on secured transactions for the mining, agriculture and construction sectors, to promote international trade. The Protocol would add on solutions such as the provision of an international registry and remedies for defaults, which will better help secure one's interests in international mobile assets.

Governments, before the creation of the CTC and its extension Protocols such as the Space Protocol, were the sole investors in the space sector.<sup>119</sup> Today, the space industry has become privatized allowing for more innovation and investment in the sector.<sup>120</sup> According to the economic assessment report of Warwick Economics and Associates, it is estimated that the MAC Protocol will assist in increasing the stock of mining, agriculture and construction equipment in developing countries, where it can be challenging to acquire them for use or collateral.<sup>121</sup> The Protocol is likely to assist small to medium and even large businesses to acquire the credit facilities by providing the certainty and predictability that lenders require. It will help creditors to effectively

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<sup>118</sup> Investment Climate Advisory Services *Secured Transactions Systems and Collateral Registries* (2010) 31.

<sup>119</sup> Hameed and International Institute for the Unification of Private Law *Asset-based Financing in the Space Industry. The Space Protocol of the Cape Town Convention – An International Instrument to Enable Secured Transactions in Space Assets. Presented at Sirius Space Talks* (2018) 4.

<sup>120</sup> Hameed and International Institute for the Unification of Private Law (n 119) 4.

<sup>121</sup> Warwick Economics and Associates (n 23) 55.



and efficiently establish their rights in a registered asset and also assist them to enforce such rights out of court subject to judicial supervision where necessary.

**ii Contributions of the proposed MAC Protocol and expected outcomes in the Mining, Agricultural and Construction sectors.**

The proposed MAC Protocol has the potential to provide for countries that are intent on improving their securities laws, a legal regime that will increase the overall size of credit available, reduce cost of secured debt and lower the cost of secured credit. More specifically, the impact of the proposed MAC Protocol is predicted to be felt by specific groups including, manufactures or producers, creditors and debtors, lessors and lessees as well as an overall economy of a country.

The proposed MAC Protocol together with the CTC has the potential to expand the productive potential of economies. As credit would be made relatively easily available, due to the certainty and predictability that the Convention provides, more manufactures and producers would invest in these sectors resulting in the general development of an economy. At the domestic level, either directly or indirectly, there would be the creation of new businesses as well as the provision of employment opportunities. For instance, in Ghana the most significant challenges facing small-scale miners is access to equipment and formal finance. This largely stems from the difficulty of obtaining formal finance.<sup>122</sup>

Small scale mining in most developing countries for instance, stand to benefit upon the adoption of the proposed MAC Protocol, as business owners would be able to secure loans for the expansion of their businesses through the acquisition of much needed high value mobile equipment. Such high value mobile equipment will introduce innovation in production whilst ensuring that the industry is brought up to date with current and efficient modes of production. The MAC Protocol is expected to provide an atmosphere where lenders are comfortable with granting huge loans for the acquisition of mobile equipment knowing their interests are protected.

For the construction industry, especially in relation to provision of public infrastructure, the MAC Protocol has the potential to empower the private sector to invest into the provision of public facilities that would have otherwise fallen upon the government. With the private sector involved in such ventures, there would be an increase not only in the number of facilities developed but also

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<sup>122</sup> Mcquillen and Hilson *Artisanal and small-scale mining in Ghana. Evidence to inform an action dialogue* (2016) 6.

the quality of infrastructure, as contractors with the help of the proposed MAC Protocol can afford the much-needed high value construction equipment.

Again, the MAC Protocol has the potential to increase overall output. This translates into an increase in total income or GDP<sup>123</sup> of an economy. With more investments into the mining, agricultural and construction industries, it is predicted that there would be a general expansion of output in the sectors. In the Agricultural sector for instance, an increased availability of credit to farmers translates to an increase in the size of farms and general output. This translates into an increase in food supply and exports which in the long run contributes immensely to the GDP of a country. For countries greatly involved in agriculture, this can be advantageous.

Globally, the proposed MAC Protocol is expected to increase the stock of mining, agricultural and construction equipment as manufacturers, exporters, investors and suppliers. This would give them the confidence to invest in the mining, agricultural and construction sectors having the knowledge that their interests will be protected. For developing countries, specifically the equipment stock for these sectors over a 10-year period, is estimated to increase by USD 90 billion, impacting the GDP of developing countries at about USD 23 billion and about USD 7 billion in developed countries.<sup>124</sup>

## **2.4 Summary**

The CTC and its existing Protocols have achieved numerous strides in the aircraft, rail and space industries by providing a set of laws that operates independent of domestic laws. They have also improved the legal regime under which creditors, manufacturers and debtors conduct their business. The Conventions so far in existence, have streamlined the rules for financing high valued mobile equipment that are international in nature, making them easily accessible by producers and developers. According to Goode, the CTC would provide lenders greater confidence in their decisions to extend credit, and reduce borrowing costs to the advantage of all interested parties.<sup>125</sup>

The proposed MAC Protocol is expected to achieve similar strides when it comes into existence. Its capacity to duly impact the ability of businesses in developing countries to acquire credit at a reduced cost is inevitable. The provision of jobs, expansion of businesses, improvement of food

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<sup>123</sup> Gross Domestic Product which is the total value of goods and services produced with a country over a specific period.

<sup>124</sup> National law for Inter-American Free Trade (n 21) 17.

<sup>125</sup> Goode (n 29).

security, development of infrastructure and the overall growth of GDP are all advantages foreseen with the adoption of the proposed protocol. The benefit for developing countries particularly is also predicted to be great, as small to large businesses in such countries involved in the manufacturing of mining, agricultural and construction equipment would increase their supply due to the increased global demand.

The role of the government in the success of the proposed MAC Protocol is incontestable. Governments which will adopt this Protocol not only have to see to its implementation but also the enforcement of the rules of the Convention that makes it uniquely applicable in the mining, agricultural and construction sectors.

### **3      *Current state of Ghana's mining, agriculture and construction sectors and the issue of financing***

#### **3.1      Introduction**

Ghana became a signatory to the CTC and the Aircraft Protocol on 16 of November, 2001.<sup>126</sup> However, these laws were only ratified as part of Ghanaian law in December 2018.<sup>127</sup> It is submitted that, this is mainly attributed to the fact that a developing country such as Ghana, would prioritize spending on health care, food security, good roads and provision of jobs, over expanding its aircraft industry. This places the development of legal frameworks for such an industry further down the ladder of priorities of a country. The Rail Protocol is even in a more precarious situation, as it still has not come into force. The desire for developing countries to ratify the Space Protocol is even lower as they still would reasonably not prioritize space explorations above provision of basic amenities for its citizens giving their scarce resources.

#### **3.2      The mining sector in Ghana**

The development of the MAC Protocol is an innovative addition to the CTC. It would cover the mining, agriculture and constructions sectors all of which are important for developing countries such as Ghana. A legal framework that would help expand these sectors is welcomed and the MAC Protocol has the potential to achieve this for developing countries. In this chapter, the current

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<sup>126</sup> International Institute for the Unification of Private Law *Status of Protocol to The Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment* (2019) [www.unidroit.org](http://www.unidroit.org) (5-07-2019).

<sup>127</sup> International Institute for the Unification of Private Law (n 126).

position of these sectors in Ghana are set out with the view of making a case for Ghana's adoption of the MAC Protocol. The landscape of Africa has been described by the African Development Bank Group as endowed with arable land, long rivers and large tropical forests.<sup>128</sup> Also, there is an abundance of minerals such as gold, diamonds, bauxite as well as healthy oil reserves in the region. In fact, about 30% of the world's mineral reserves are found in Africa.<sup>129</sup> This accounts for an average of 70% of total African exports and about 28% of its GDP.<sup>130</sup> As such, mineral exploitation contributes significantly to the public finance of most African countries.

Ghana, as most developing countries in Africa, is rich in natural resources. The country commercially mines minerals such as gold, manganese, bauxite and diamonds.<sup>131</sup> As the second largest producer of gold in Africa after South Africa, gold contributes to about 95% of the country's mineral revenue.<sup>132</sup> According to the Ghana Statistical Service, the mining and quarrying industry contributed Gh¢ 24,775.5 million to the GDP of the country in 2018.<sup>133</sup>

Initially, in Ghana, most mining activities were exclusively state owned, limiting its extent and intensity.<sup>134</sup> This was mainly due to the fact that there was little or no involvement of private and foreign investors in the sector. Since Ghana initiated its Economic Recovery Program<sup>135</sup> in 1983, there has been a paradigm shift towards an era of increased foreign investments, privatization and state divestiture.<sup>136</sup> There has been the establishment of the Minerals Commission in 1984; the promulgation of the Minerals and Mining Code in 1986;<sup>137</sup> the promulgation of the Small Scale Mining law<sup>138</sup> in 1989 and the establishment of the Environmental Protection Agency<sup>139</sup> in 1994,

<sup>128</sup> African Development Bank Group *African Natural Resources Center. Catalyzing Growth and Development through Effective Natural Resources Management* (2016) 3.

<sup>129</sup> African Development Bank Group (n 128) 3.

<sup>130</sup> African Development Bank Group (n 128) 3.

<sup>131</sup> International Council on Mining and Metals *Mining in Ghana – What future can we expect?* (2015) 17.

<sup>132</sup> International Council on Mining and Metals (n 131) 17.

<sup>133</sup> Ghana Statistical Service *Statistics for Development and Progress. Rebased 2013-2018 Annual Gross Domestic Product* (2019) 6.

<sup>134</sup> African Development Bank Group (n 128) 5.

<sup>135</sup> The aim of this program was to reverse a protracted period of serious economic decline characterized by lax financial management, inflation rates well over 100 percent, and extensive government involvement in the economy. [www.imf.org](http://www.imf.org) (26-06-2019).

<sup>136</sup> Amponsah-Tawiah and Dartey-Baah "The Mining Industry in Ghana: A Blessing or a Curse" 2015 *International Journal of Business and Social Science* 62 64.

<sup>137</sup> Minerals and Mining Law, PNDCL153 of 1986.

<sup>138</sup> Small-Scale Gold Mining Law PNDCL 218 of 1989.

<sup>139</sup> Environmental Protection Agency Act 490 of 1994.

all of which have improved the mining sector in Ghana.<sup>140</sup> Currently, the sector is predominantly foreign owned with government retaining only a 10% ownership in most large-scale mining companies.<sup>141</sup>

The mining industry in Ghana, comes with its fair share of challenges including environmental degradation, illegal mining and inadequate access to capital, especially for small-scale mining industries. With the issue of limited access to capital, the small-scale mining companies are particularly affected because most of them are faced with the initial challenge of raising capital to start their businesses.<sup>142</sup> For existing companies, there is a need for capital to acquire modern and advanced equipment that would assist in increasing their overall production output. Small-scale mining companies end up stunted in growth, leading to their gradual collapse.<sup>143</sup>

The MAC Protocol could be an innovative way of improving access to capital for the mining industry in Ghana. It will allow financiers to provide credit at a lower cost to both small-scale and large-scale mining companies whilst also incentivizing individuals, who would otherwise have engaged in illegal mining, to take the legal route. To help small-scale mining companies in Ghana expand their operations, the MAC Protocol will aid in increasing the supply of secured finance for the acquisition of mining equipment. This would make it easier, faster and cheaper for investors to recover mobile assets in cases of default. Again, debtors will not be required to give up possession of the encumbered asset and, as such, will be able to continue its business operations. This will assist them in obtaining the full value inherent in the asset as well as obtaining credit with it.

### **3.3 The agriculture sector in Ghana**

Agriculture can be understood as the various ways through which crop plants and domestic animals are produced to provide the human population food and other products.<sup>144</sup> In recent times, agriculture aside from farming has been understood to include the production of dairy, poultry, bee keeping and fish rearing.<sup>145</sup> It is submitted that, agriculture is the backbone of many industries

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<sup>140</sup> Amponsah-Tawiah and Dartey-Baah (n 136) 62 64.

<sup>141</sup> International Council on Mining and Metals (n 131) 5.

<sup>142</sup> Mcquilken and Hilson (n 122) 6.

<sup>143</sup> Mcquilken and Hilson (n 122) 6.

<sup>144</sup> Harris and Fuller Agriculture: Definition and Overview (2014) *Encyclopedia of Global Archaeology* 104 104.

<sup>145</sup> Harris and Fuller (n 144) 104 104.

as it provides raw materials for production. The development of agriculture has become closely linked with economic development of a country as it contributes a significant part of GDP. For instance, in Ghana, the agriculture industry contributed Gh¢ 29,877.5 to GDP in 2018.<sup>146</sup>

The agricultural policies and goals of Ghana centre on global, regional and national agendas. For instance, at the global and national level, the country has the goal to alleviate extreme poverty by 2030, as well as, improve livelihoods through accelerated agricultural development.<sup>147</sup>

Agriculture plays a major role in the economic development of Ghana.<sup>148</sup> It has already made significant contributions to the economic prosperity of developed countries and its role in the economic development of developing countries is imperative. By the use of agriculture to compliment the industrial sector for instance, low income countries such as Ghana can be able to improve their *per capita* income. Agriculture provides food and raw materials to non-agriculture sectors, helps earn valuable foreign exchange through export and provides employment for a vast portion of a country's population.<sup>149</sup> For example, the cocoa industry contributes about 25% of the total foreign exchange earnings in Ghana annually.<sup>150</sup>

In light of the above, innovations that will expand the agricultural sector in a state such as Ghana is welcomed. The provision of tools and capital equipment for farming, for instance, is fundamental. The government of Ghana has undertaken some interventions to develop agriculture in the country. For instance, in 1965 the Agricultural Development Bank was established to address the needs of the agricultural sector.<sup>151</sup> The bank provides agricultural loans as well as development banking services for its clients.<sup>152</sup> So far, this bank has been useful to the agricultural sector by providing low interest loans to farmers thereby generally expanding the agricultural output in the country.<sup>153</sup>

The government of Ghana also in its bid to expand the agricultural sector provides fertilizer, training of best farming practices for farmers and well as advocates for the mechanisation of the

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<sup>146</sup> Ghana Statistical Service (n 133) 6.

<sup>147</sup> Ministry of Food and Agriculture *Monitoring and Evaluation Directorate Agricultural Sector Progress Report* (2016) 26.

<sup>148</sup> Ministry of Food and Agriculture (n 147) 26.

<sup>149</sup> The World Bank Group *Ghana: Agriculture Sector Policy Note* (2017) 30

<sup>150</sup> Animah *The Ghanaian Cocoa Market; Actors and Policies* (2017 Thesis Ca'Foscari University of Venice) 10.

<sup>151</sup> Antwi-Asare and Addison *Financial Sector Reforms and Bank Performance in Ghana* (2000) 39.

<sup>152</sup> Antwi-Asare and Addison (n 151) 39.

<sup>153</sup> Nimoh, Tham-Agyekum and Awuku "Factors Influencing Access of Poultry Farmers to Credit: The Case of the Agricultural Development Bank (ADB) in Ga East Municipality, Ghana" 2013 *Scientific & Academic Publishing* 54



agricultural sector.<sup>154</sup> It is submitted that, the use of tractors instead of only basic tools for farming can greatly affect the output levels as more land can be cultivated. It is for this reason that the MAC Protocol could be a useful addition to the laws of Ghana.

For the agricultural sector, the MAC Protocol would be very useful in two senses. Firstly, the Protocol would provide access to credit to companies for the purchase or leasing of equipment due to the certainty it would create, despite ever changing domestic laws or the possible movement of assets across borders. Secondly, farmers would be in the position to purchase high value equipment for farming and after the debt has been redeemed, be used as collateral for loans to assist in expanding their businesses.

### **3.4 The construction sector in Ghana.**

The construction sector is important to the economic health of Ghana, due to both its size and its strategic position as an economic driver of growth.<sup>155</sup> According to the Ghana Statistical Service, the construction industry contributed Gh¢ 13,359.6 million to the GDP of the country in 2018.<sup>156</sup> This sector in Ghana has become increasingly relevant in recent times particularly due to the discovery of oil and gas, rapid urbanization and its accompanying vice, housing deficit.<sup>157</sup>

In Ghana, the majority of people live in poor quality and often overcrowded housing.<sup>158</sup> Again, with the discovery of oil and gas in Ghana in 2007,<sup>159</sup> the areas close to where the oil was discovered, have become over populated leading to the high demand of housing. To meet this demand for residential buildings, the construction sector employs numerous artisans and professionals to aid with supply. They usually engage in this business at a small-scale or on individual bases. The challenge that they usually face is, with regards to securing loans or good credit that would help them acquire the needed tools or equipment to assist in expanding their businesses.

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<sup>154</sup> The World Bank Group (n 149) 30.

<sup>155</sup> Deloitte *Invest in Ghana. A stable springboard into West Africa* (2017) 11.

<sup>156</sup> Ghana Statistical Service (n 133) 6.

<sup>157</sup> Yankson and Bertrand “Challenges of Urbanization in Ghana” 2012 *Council for the Development of Social Science Research in Africa* 25 25.

<sup>158</sup> Darko and Löwe *Ghana’s construction sector and youth employment* (2016) 7.

<sup>159</sup> Darko and Löwe (n 158) 11.

For the construction of public facilities such as roads, schools and hospitals, governments over the years have been initiating and undertaking most of the investment in infrastructure provision.<sup>160</sup> This puts a lot of strain on a state's resources. The government of Ghana, through a public-private partnership (PPP) policy, tries to complement its expenses in the sector.<sup>161</sup> Through such alliances they are able to acquire the needed capital for developing the sector.

Some of the largest producers of mining, agricultural and construction equipment globally are found in the US, China, Japan, Russia, Western Europe, Korea and India.<sup>162</sup> By the adoption of the MAC Protocol in Ghana, it is envisaged that there will be reduced cost of MAC equipment between these countries and Ghana, and within Ghana. Harmonisation of secured transactions rules for the mining, agriculture and construction sectors implies equal and mutual benefits for signatory states. This implies that artisans engaged in small-scale construction, private individuals as well as the state could have access to the needed equipment that will help grow the construction industry.

### **3.5 Financing challenges in the development of the various sectors and its repercussions**

Risk is the most important component of the relationship of a lender and borrower. The risk that a borrower would be able to pay back a loan is ever present in the lender-borrower relationship. In this relationship, the lender is always oblivious about the true management capacity of the borrower. Even when loans are acquired locally the lender would still be in the dark on such issues. Thus, a borrower can obtain credit to expand his business but use the loan for something unintended. This could imply potential loss to the lender thereby disincentivising investment. It is submitted that, the MAC Protocol has the potential to alleviate this sort of risk to the lender and provide an incentive for investment. By registering mining, agricultural and construction equipment, the lender has the guarantee not only that the loan was used for its intended purpose but also assists to easily track down registered equipment in the event of insolvency.<sup>163</sup>

Another area of risk that affects the financing of mining, agricultural and construction sectors is relates to the very nature of operations in these sectors. For instance, in the agriculture sector, a farm could totally fail due to the loss of all farm produce caused through diseases, bush fires and

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<sup>160</sup> International Labour Office *Background Studies on Infrastructure Sector in Ghana* (2017) 39.

<sup>161</sup> International Labour Office (n 160) 13.

<sup>162</sup> Warwick Economics and Associates (n 23) 25.

<sup>163</sup> Insolvency issues would be dealt with in accordance with Article X of the MAC Protocol of 2019.



droughts for example. The MAC Protocol is expected to help secure the priority of registered international interests over unregistered interests in encumbered equipment in the event of insolvency.

Again, there is the risk of political intervention in the mining, agricultural and construction sector markets especially in most developing countries. As part of the state policy in Ghana to regulate illegal mining in the country, it tightened regulatory controls on the mine closures.<sup>164</sup> This policy made the operations of small-scale legal mines somewhat difficult. Again, governments could implement tax cuts, abolish price ceilings or change their overall state policy for any sector at any time. The MAC Protocol provides the certainty and predictability that rights of creditors and lenders over an encumbered asset will be recognised. The security that it provides gives lenders confidence to invest more into various sectors of an economy. This implies the growth and expansion of the mining, agricultural and construction sectors, a desired impact for most developing countries.

### **3.6 Summary**

Ghana's economy is greatly impacted by its mining, agricultural and construction sectors. The proposed MAC Protocol provides the regulatory framework that could be used to improve these sectors. The problem of illegal mining, for instance, that is present in Ghana can be eradicated by the increased access to credit for potential miners. For small scale farmers, the MAC Protocol will improve access to credit for the acquisition of the needed farming equipment to help in the expansion of their businesses which will translate into high production outputs. In the construction sector, more artisans can expand their businesses which would translate into more infrastructure at reduced costs. In all, the economy of a developing country is likely to benefit immensely from the coming into force of the MAC Protocol.

## **4 General Conclusion and Recommendation**

### **4.1 Introduction**

Through this study, it can be deduced the CTC and its supporting Protocols have revolutionized security of interest in high value mobile equipment. Although the Aircraft Equipment Protocol is the only protocol in force, its contribution to commerce is unparalleled. Similar strides are

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<sup>164</sup> Nwokolo *Ghana's battle with illegal artisanal and small-scale mining* (2019) [www.blogs.lse.ac.uk](http://www.blogs.lse.ac.uk) (5-07-2019).

expected from the other Protocols which are either yet to come into force, or yet to be enacted as the proposed MAC Protocol. This chapter will sum up the conclusions of the study and proffer some recommendation to aid the success of the proposed MAC Protocol.

## **4.2 General Conclusions**

The CTC is a phenomenal addition to the commercial legislations. It assists to solve the problem of manufacturers and creditors having to deal with the different approaches of legal systems to security and title reservation rights, when involved in an international transaction. The difficulty of going through the laws of various legal systems creates uncertainty among potential financiers or creditors. This uncertainty inhibits a country's (especially developing countries) access to finance and increases borrowing costs. The CTC creates a substantive legal atmosphere to address such issues thereby creating a more predictable and secure system for trade in high value mobile assets.

Although the Aircraft Equipment Protocol is the only Protocol of the CTC in force, the proposed MAC Protocol is likely to follow its achievements. The likelihood that the MAC Protocol shall come into force soon is highly predictable, comparing it to the other Protocols yet to come into force. The MAC Protocol covers key sectors of the economy that every developing country as Ghana are keen on expanding in. It will be beneficial for the development of economies as credit or financing assistance would be provided where it would have otherwise not existed.

Ghana's economy is greatly influenced by its mining, agricultural and construction sectors. These sectors in most developing countries such as Ghana employ artisans and technical professionals, whose businesses are usually small. They stand to benefit greatly from the use of modern equipment. The MAC Protocol has the potential of developing and expanding the economies of developing countries by creating the needed trading atmosphere for dealing in mining, agricultural and construction equipment. The adoption of the MAC Protocol in developing countries is highly recommended.

## **4.3 Recommendations**

In this subsection, a number of recommendations are put forward to assist with the successful and effective global implementation of the legal regime created by the CTC and its Protocols to render asset-based financing more accessible.

### 1 Creation of public awareness

In terms of number of Contracting States, the most successful of the CTC has been the Aircraft Protocol.<sup>165</sup> The other Protocols, the Rail and Space Protocol, although complete, are still not in force. This could be attributed to the lack of awareness of the existence of these Protocols and the inadequate education of states as to their benefits. A similar fate hangs over the proposed MAC Protocol. Unless there are symposiums and workshops organised to cast more light on the benefits of this Protocol, it is likely to fail. Promoting awareness through education, has the propensity to increase the number of Contracting States for the proposed MAC Protocol and the Protocols not yet in force.

### 2 Negotiate, ratify and implement

Ghana, as a developing country, that is highly dependent on its mining, agricultural and construction sectors, must endeavour to improve and expand these sectors. Ghana must not only become a signatory to the MAC Protocol but also ratify it immediately when it comes into force as its impact in the mining, agricultural and construction sectors would be tremendous. Ghana must make it a point to fully participate in the negotiation that are still under way for the creation of the MAC Protocol. This will allow them to contribute to shaping the law with their interests in mind even before it comes into force. Negotiation, ratification and implementation may involve several years' work and costs, but there will be significant benefits for developing countries.

### 3 Training

It is submitted that, having efficient laws regulating transactions in high value mobile assets alone, is no guarantee of its success. The effective implementation, monitoring and evaluation of such laws, is essential for its success. The training of lawyers, creditors and judges, for instance, on the effective use of the registry system created under the CTC regime, can promote its efficient implementation for secured transactions in movable property.

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<sup>165</sup> Aircraft Protocol is made up 76 Contracting States and the EU as of 2019. [www.unidroit.org](http://www.unidroit.org) (5-07-2019).

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